

SCIENTIFIC SERVICES

postal Private Bag X6546, George, 6530
physical 4th Floor, York Park, Building,
York Street, George, 6530
website www.capenature.co.za
enquiries Colin Fordham
telephone +27 44 802 5328 **fax** +27 44 802 5313
email cfordham@capenature.co.za
reference 14/2/1/6/1/6/1_BITO/508_2017/CF135
date 5th December 2017

HiLand Environmental
P.O. Box 590
GEORGE Tel.: (044) 889 0229
6530 Fax: (086) 542 5248
Anje@hiland.co.za

Attention: Anje Taljaard

COMMENT ON PRE-APPLICATION BASIC ASSESSMENT REPORT IN TERMS OF THE NEMA ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS FOR THE PROPOSED RIVER BANK MAINTENANCE AT SILVERSTREAM ESTATE ERF 508 PLETTENBURG BAY, BITOU MUNICIPAL AREA.

DEA Reference Number: None yet issued

CapeNature, as custodian of biodiversity in the Western Cape¹, would like to thank you for the opportunity to comment on the Pre-application Basic Assessment report for the river bank maintenance on Erf 508 Plettenberg Bay (received on the 1st November 2017) and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the application.

The following extract was obtained from the supplied Environmental Management Programme (EMPr) which outlines the scope of works proposed:

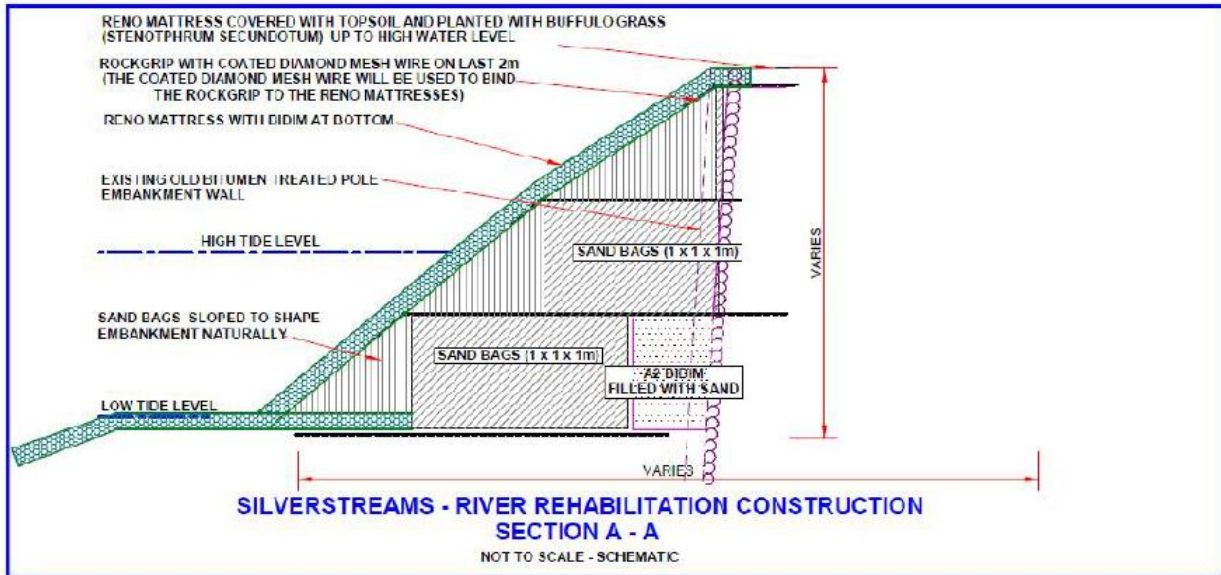
“The proposal is to repair the existing creosote timber retaining structure.

Alternative 1 - replace the existing timber structure with a new timber structure of the same nature and function.

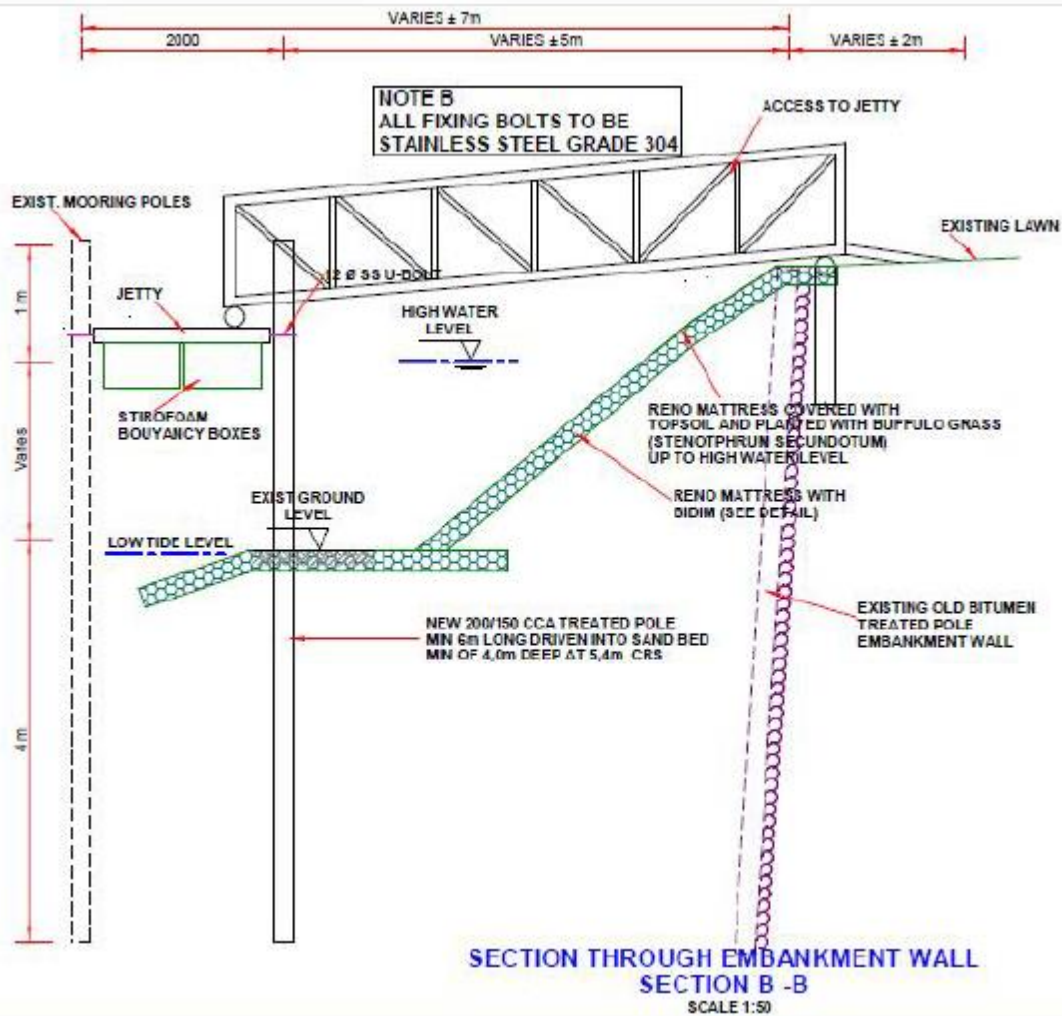
Alternative 2 - replace the existing timber structure with a sand bag and renomattress retaining structure.

This structure will commence with its supporting toe structure around the current mooring poles and will slope back replacing the current vertical retaining walls in order to more naturally emulate a river bank.

¹ Section 9, Western Cape Nature Conservation Board Act 15 of 1998



The proposal is to attach a floating jetty to the inner side of the existing mooring poles that will allow ease of access to the water and boats at mooring, while allowing the riverbank slope to be revegetated with natural vegetation and help restore the ecological corridor link along the water's edge.



The existing retaining walls at Silver Streams are approximately 300m in length. The upstream riverbank protection at BlueWaters Estate has recently been replaced with a sloping reno-mattress structure similar to that proposed for this project. There will be no change to the current tie in between the two properties.

The dominant vegetation on the site consists mainly of Pennisetum clandestinum (Kikuyu) lawns and landscaped areas. The river bed contains Zostera sp. (Eel grass) beds.

The purpose of the replacement of the existing retaining structure is to follow the approach requested by CapeNature to remove Creosote timber retaining walls from the Estuary and to replace them with a "softer" option that facilitates restoring the habitat at the same time as protecting the river banks from erosion and collapse. The current creosote pole embankment is not a long-term sustainable solution and poses future environmental problems.

The revegetation will be undertaken with riparian vegetation that is suited to the salinity profile of the bank (salt marsh near the base and more terrestrial further up the slope)."

According to Mucina and Rutherford² and the Western Cape Biodiversity Spatial Plan (WCBSP 2017)³ the vegetation unit which would probably be affected by the proposed scope of works is the **Endangered** listed Garden Route Shale Fynbos and the Cape Estuarine Salt Marsh (Figure 1). The Garden Route Shale Fynbos vegetation unit is listed as a threatened ecosystem in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM: BA). The Garden Route Shale Fynbos contains 8 threatened plant species and 3 endemic plant species with 4% formally conserved and 44% of its original extent remaining in a natural condition. The conservation target for Garden Route Shale Fynbos vegetation unit is listed as 23% of its original extent and Cape Estuarine Salt Marsh at 24% of its original extent. The site has however been completely transformed.

² Mucina, L. & Rutherford, M. C. (EDS) 2006. The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria. (revised 2012)

³ Pence, G.Q.K. 2017. The Western Cape Biodiversity Spatial Plan: Technical Report. In Prep. Western Cape Nature Conservation Board (CapeNature), Cape Town.

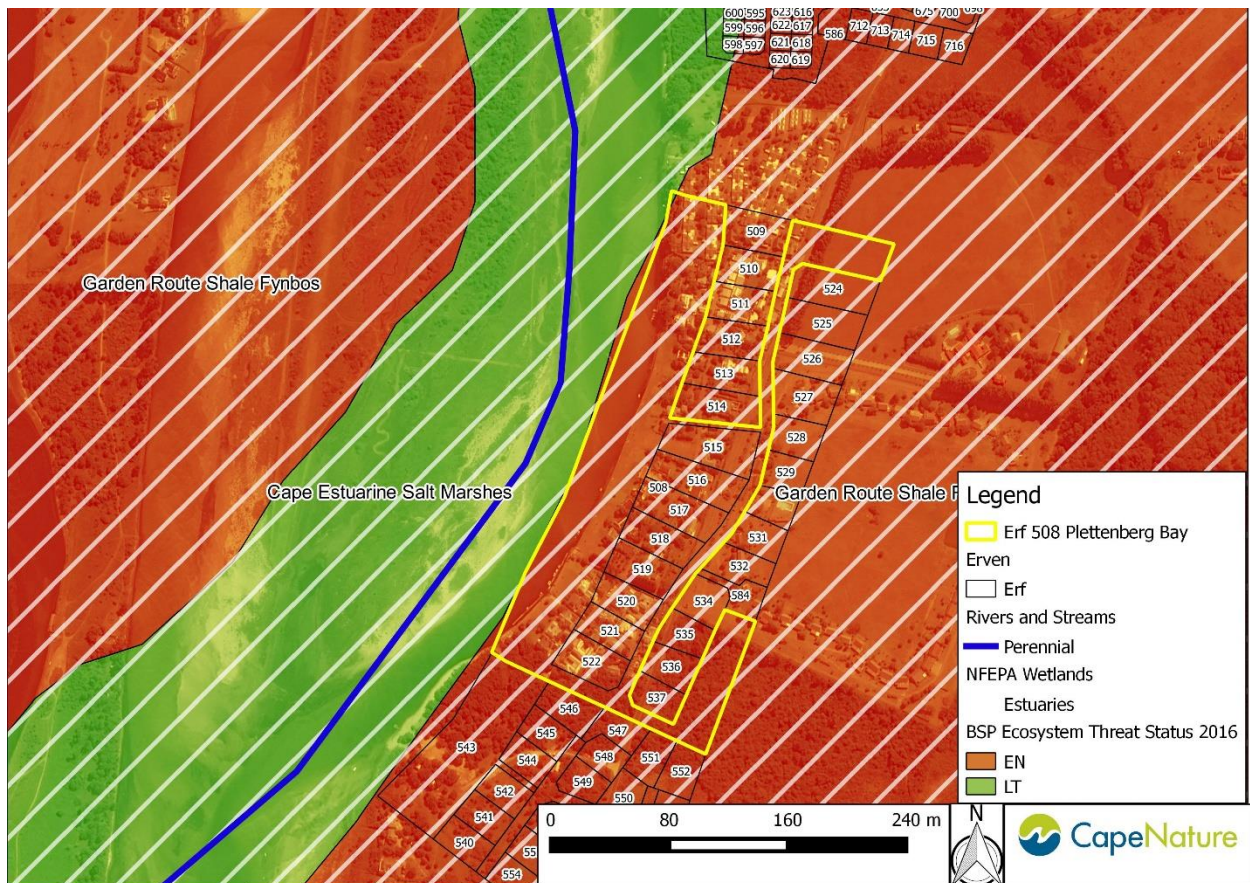


Figure 1: Map of the Erf 508, showing the vegetation units (statuses shown on map), National Freshwater Priority Area data and locations of streams and rivers.

The Erf borders the Keurbooms Estuary which is a Freshwater Ecosystem Priority Areas (FEPAs)⁴ (Figure 1 and 2). In addition to which the proposed habitat which would be impacted is in Estuarine Critical Biodiversity Areas 1 (CBA 1) (WCBSP 2017)⁵ (Figure 2).

⁴ Nel, J.L., Murray, K.M., Maherry, A.M., Petersen, C.P., Roux, D.J., Driver, A., Hill, L., Van Deventer, H., Funke, N., Swartz, E.R., Smith-Adao, L.B., Mbona, N., Downsborough, L. & Nienaber, S. (2011). Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.

⁵ Pence, G.Q.K. 2017. The Western Cape Biodiversity Spatial Plan: Technical Report. In Prep. Western Cape Nature Conservation Board (CapeNature), Cape Town.

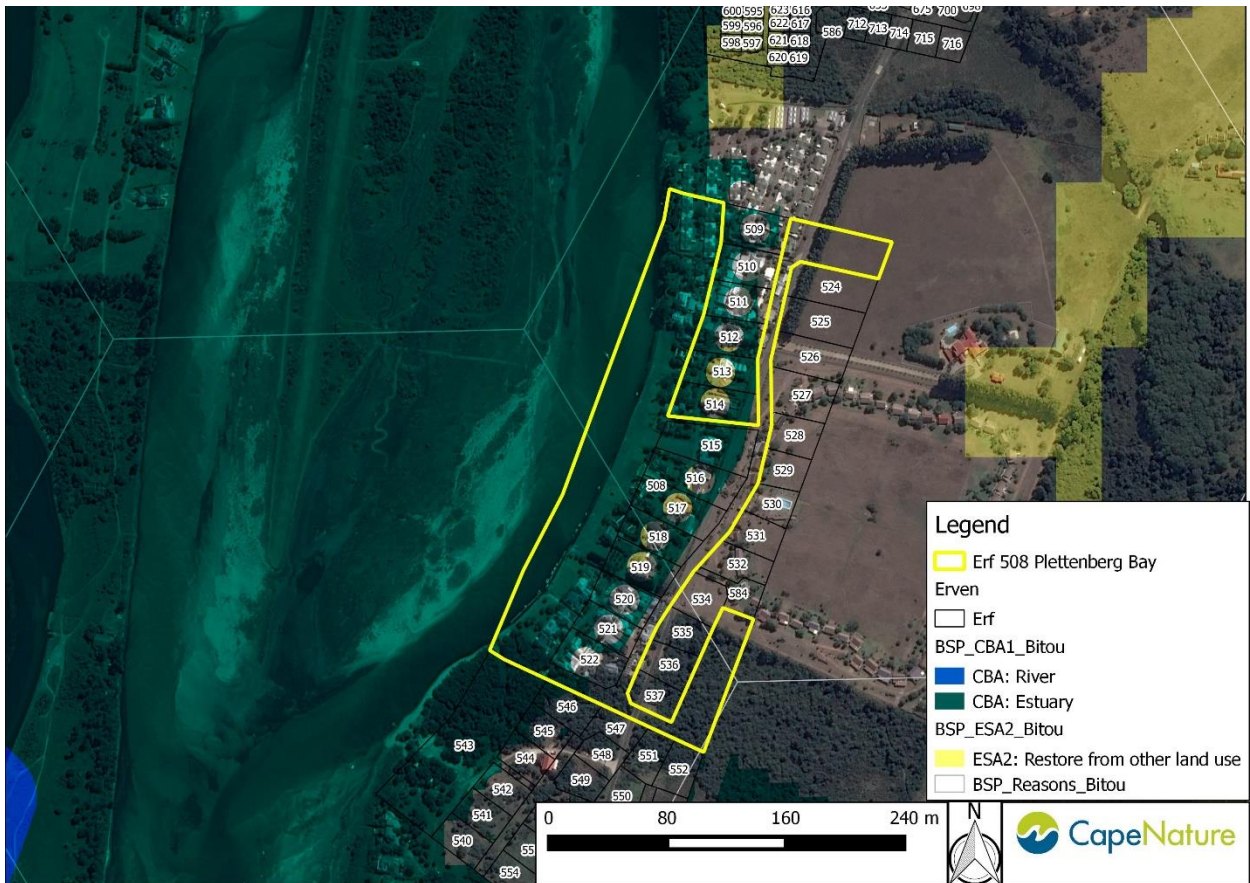


Figure 2: Map of the Erf 508, showing the Western Cape Biodiversity Framework (WCBF) CBA classification for the property (Pence 2014), as well as protected areas.

CBA 1 areas are defined as: “Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.”. CBA 1 objectives are: “Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.”

Following a review of the Preapplication Basic Assessment Report (BAR), and appendices, and given the above mentioned sensitivity of the site, CapeNature would like to make the following comments/recommendations:

1. CapeNature would like to remind the landowner that in terms of the Alien and Invasive Species Regulations, NEM: BA⁶, 2014, specific alien plant species (e.g. *Pennisetum clandestinum*) are either prohibited or listed as requiring a permit; aside from restricted activities concerning, *inter alia*, their spread, and should be removed. The level of alien infestation is therefore not to be seen as reducing the sensitivity of a site, nor is the subsequent removal of alien vegetation from a property regarded as a mitigation measure due to this is a legal requirement. Infestation by alien plants does not necessarily mean that an area is not important for biodiversity as some vegetation types are particularly prone to invasive alien infestation but may recover when cleared of alien vegetation.

⁶ Government Gazette No. 37885, GN No. R. 598 (2014) National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) Alien and Invasive Species Regulations, 2014

2. CapeNature would like to request that any formal instruction or communication or requests obtained by the applicant (from CapeNature), regarding the removal of the structures or regarding this proposed project be presented in the Draft BAR. Alternatively it is requested that the Environmental Assessment Practitioner (EAP) remove any reference to CapeNature requesting any actions outside the extent of any formal communication with the applicant. Specifically communication relating to the removal of the structures or CapeNature supporting any proposed scope of works should be removed unless formal communication/instruction was presented.
3. Within the BAR the following is stated *“The replacement of the existing vertical Creosote Treated Timber river bank retaining wall with a sloped structure built out of sand bags and geofabric covered by a reno-mattress and revegetated with indigenous riparian vegetation.”* CapeNature supports the reinstatement of indigenous vegetation along the estuary, however requests that a complete rehabilitation plan be compiled and appended to the Draft BAR. This rehabilitation plan should be compiled by a relevant suitably qualified specialist. This specialist must have in-depth knowledge of the local vegetation type present on site (or within the region) to, *inter alia*, make recommendations where planting of particular species should occur and what potential irrigation regime should be applied to ensure rehabilitation success of the site. The appointed specialist should also provide a list of species proposed for rehabilitation and a map illustrating the proposed scope of works and regions where particular species should be planted. Lastly a detailed method statement of how the applicant would proceed with the rehabilitation work should also form part of the rehabilitation plan.
4. The effect of gabion structures (such as reno-mattresses) on the surrounding area must be considered. Hard engineering structures, *inter alia*, prevent natural sediment drift which often results in sand deficits downdrift of the structure, causing erosion. Cross-shore erosion is also promoted by hard structures as waves are deflected by the structures, hampering energy dissipation, often concentrating it on adjacent sites exacerbating erosion at those sites. Based on the above, if gabion structures are to be considered on a sandy system, the system as a whole should be considered (in terms of whether the construction of the gabions will alter sediment transport processes and water circulation patterns). Without this type of study, the cumulative impacts of placing gabion structures on the sandy system cannot be assessed and the alternative cannot be considered reasonable and / or feasible as the construction of the gabions could have unintended consequences on adjacent properties in future. In general, CapeNature does not support the placing of hard protection structures on sandy systems. Please note that, regardless of the alternative implemented to prevent erosion of the bank, the risk to the property and adjacent properties will remain unless properly investigated and suitable mitigation measures are implemented. Section 15 of the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) as amended (the ICM Act) states:

“(1) No person, owner or occupier of land adjacent to the seashore or other coastal public property capable of erosion or accretion may require any organ of state or any other person to take measures to prevent the erosion or accretion of the seashore or such other coastal public property, or of land adjacent to coastal public property, unless the erosion is caused by an intentional act or omission of that organ of state or other person.

(2) No person may construct, maintain or extend any structure, or take other measures on coastal public property to prevent or promote erosion or accretion of the seashore except as provided for in this Act, the National Environmental Management Act or any other specific environmental management Act.”

If environmental authorisation is obtained for the proposed gabions, the applicant will be compliant with section 15 (2) of the ICM Act. If, however, erosion occurs / is exacerbated on adjacent properties as a result of the proposed and / or existing protection measures (regardless of whether it was authorised) and such erosion was a reasonably foreseeable consequence of placing the protection measures in front of the property, the owner(s) of the property could potentially be held liable for any protection and / or rehabilitation measures required at those adjacent properties in terms of section 15 (1) of the ICM Act.

CapeNature suggests that the applicant be made duly aware of these risks and liabilities associated with the proposed activity. Activities within this area are at the applicants own risk and CapeNature cannot be held liable for any claims made for damages incurred as a result of estuarine or wind action or other natural disasters; including if any damage downdrift of or adjacent to the site is caused by the proposed protection and management measures.

5. A monitoring programme should be put in place to determine if the protection measures are achieving their objectives and to determine if the protection measures are causing erosion downstream of the site (within the estuary and along downstream properties).

If the protection measures cause erosion downstream / downdrift of the site, the Environmental Management Plan or Environmental Authorisation must state measures to:

- (1) determine the cause of the erosion;
 - (2) determine suitable mitigation / rectification / rehabilitation measures; and
 - (3) rectify the situation by e.g. altering the design of the structures / removal of the structures, etc.
6. As the activity is proposed to take place below the high water mark in the estuary, it is assumed that some work will be required on Coastal Public Property (CPP). In terms of the ICM Act, CPP exists to
 - (i) improve public access to the seashore;
 - (ii) protect sensitive coastal ecosystems;
 - (iii) secure the natural functioning of dynamic coastal processes;
 - (iv) protect people, property and economic activities from risk arising from dynamic coastal processes, including the risk of sea-level rise; or
 - (v) to facilitate the achievement of any of the objects of the ICM Act.

The effect of the proposed development on the above objectives must therefore be assessed, including how development setbacks have been utilised to achieve these objectives.

7. With regard to the placement of the proposed structures and the position of the high-water mark, the ICM Act states:

“high-water mark’ means the highest line reached by coastal waters, but excluding any line reached as a result of—

 - (a) exceptional or abnormal weather or sea conditions; or*
 - (b) an estuary being closed to the sea;”*

In addition, the position of the high-water mark is determined using section 14 of the ICM Act which reads:

“(1) No person may replace the high-water mark curvilinear boundary with a straight line boundary in terms of section 34 of the Land Survey Act.

...

(5) If the high-water mark is landward of a straight line boundary of a coastal land unit when this Act took effect, or the high-water mark moves landward of a straight line boundary of a coastal land unit due to the erosion of the coast, sea-level rise or other causes, the owner of that coastal land unit—

(a) loses ownership of any portion of that coastal land unit that is situated below the high-water mark to the extent that such land unit becomes coastal public property; and

(b) is not entitled to compensation from the State for that loss of ownership, unless the movement of the high-water mark was caused by an intentional or negligent act or omission by an organ of state and was a reasonably foreseeable consequence of that act or omission.”

Based on the above excerpts from the ICM Act and this proposed scope of works comment from the Chief Directorate: Integrated Coastal Management (ICM) in the Branch: Oceans and Coasts at the National Department of Environmental Affairs (DEA) is vital and must be obtained. Also note the provisions of section 14 (5) of the ICM Act relating to ownership of land below the high-water mark.

8. Please note that no structures should be placed on CPP unless it complies with the purpose of CPP as detailed in Section 7A of the ICM Act. In this regard, Section 15 of the ICM Act states:

“(1) No person, owner or occupier of land adjacent to the seashore or other coastal public property capable of erosion or accretion may require any organ of state or any other person to take measures to prevent the erosion or accretion of the seashore or such other coastal public property, or of land adjacent to coastal public property, unless the erosion is caused by an intentional act or omission of that organ of state or other person.

(2) No person may construct, maintain or extend any structure, or take other measures on coastal public property to prevent or promote erosion or accretion of the seashore except as provided for in this Act, the National Environmental Management Act or any other specific environmental management Act.”

The structures cannot therefore be used to reclaim land lost to dynamic coastal processes.

9. In terms of the Sea Shore Act, 1935 (Act No. 21 of 1935) a lease agreement is required from CapeNature for any structures seawards or on the High Water Mark of the Sea on state-owned land, including the proposed and existing protection measures and the jetty. Please note that in terms of section 3(5) of the Sea-Shore Act, 1935 (Act No 21 of 1935)

“Before any lease is entered into under subsection (1) or any permit is granted under subsection (2), the Minister shall, at the expense of the person with or to whom it is proposed to enter into such lease or to issue such permit, cause a notice to be published in the Gazette and in not less than one newspaper circulating in the neighbourhood wherein the portion of the sea-shore or the sea concerned is situated, wherein-

(a) the proposal to enter into the lease or to issue the permit is made known;

(b) the place where and the times at which full particulars of the proposed lease or permit will be open for inspection are specified; and

(c) it is specified that objection to the proposed lease or permit may be lodged with a person specified in the notice, before a date so specified, which shall be not less than 30 days after the date on which the notice is published.”

After the 30 days' notice period has expired and if no objections have been received from the public and the local authority, the application will be submitted to CapeNature's CEO for final approval. An Agreement of Lease (AOL) together with an invoice for the first year will then be sent to the applicant. The AOL will only be signed by CapeNature once proof of payment for the lease period has been received. (An invoice will be issued annually afterwards). Three quotations will need to be provided by the applicant to CapeNature for the newspaper publication.

10. CapeNature does not support the current preferred alternative for the following reasons:

10.1. The current layout of the preferred alternative starts at the current wooden poles and extends outwards into the estuary, effectively displacing additional water through the slope design and infilling a section of the estuary. This layout will result in hydrological changes to the estuary and could result in the aforementioned listed points or impacts, potentially impacting neighbouring estuarine properties. Should the preferred alternative remain as is, specialist hydrological opinion must be obtained by the applicant to determine the impact of displacing the water in the system, taking note of the aforementioned points and the ICMA.

10.2. The current layout would result in the dredging and replacement of estuarine habitat to accommodate a rather large reno-mattress bed (this has numerous construction phase impacts such as sedimentation, habitat loss and habitat fragmentation). CapeNature recommends the applicant rather consider setting back the entire system further away from the estuary deeper into the current embankment to minimise the extent of estuarine habitat loss. The jetties could be extended concurrently, but the aim of this process would be to reduce the extent of reno-mattress as much as is possible. Specialist opinion regarding the ecological marine impacts on any proposed system should also be obtained. The impacts should be assessed, especially the impacts that various proposed alternatives could have on any protected fauna or flora.

10.3. The current poles and boats are moored bordering the river channel, which is hazardous to Keurbooms estuary boat users. The current preferred alternative design of the jetty system proposed will be built up to the extent of the poles. Boats will then potentially be moored alongside the jetties, resulting in boats being placed deeper into the river channel. The depth of the jetties into the estuary should be reduced so that boats moored on the new proposed jetties will not protrude beyond the extent of the current poles.

To conclude, CapeNature **currently objects** to the proposed preferred alternative, but is of the opinion that there is potential to implement a successful project on the Erf provided all aspects are considered. CapeNature may provide additional comment on any required further applications and reserves the right to revise initial comment and request further information based on any additional information that may be received.

Yours sincerely

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The Western Cape Nature Conservation Board trading as **CapeNature**

Board Members: Ms Merle McOmbring-Hodges (Chairperson), Dr Colin Johnson (Vice Chairperson), Mr Mervyn Burton, Prof Denver Hendricks, Dr Bruce McKenzie, Adv Mandla Mdludlu, Mr Danie Nel, Prof Aubrey Redlinghuis, Mr Paul Slack



Colin Fordham
For: Manager (Scientific Services)

Copies to:
(1) Mr H Nieuwoudt (CapeNature)
(2) Mrs S. Pullen (DEA&DP)
(3) Ms C George (DEA&DP)